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Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes on his mission to the United Kingdom of Great Britain and Northern Ireland*

Note by the Secretariat

The Secretariat has the honour to transmit to the Human Rights Council the report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes on his mission to the United Kingdom of Great Britain and Northern Ireland. In his report, submitted pursuant to Human Rights Council resolution 27/23, the Special Rapporteur shares his findings and recommendations derived from his visit.

* The present report was submitted after the deadline in order to reflect the most recent developments.

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* Circulated in the language of submission only.

I. Introduction

1. The Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes conducted an official visit to the United Kingdom of Great Britain and Northern Ireland from 17 to 31 January 2017. The purpose of the visit was to monitor and assess steps taken by the Government to protect the human rights implicated in the management of hazardous substances and wastes.

2. The Special Rapporteur wishes to thank the Government of the United Kingdom for its invitation and cooperation. The Special Rapporteur met with governmental representatives of the United Kingdom and authorities of the devolved governments of Northern Ireland, Scotland and Wales; representatives of human rights commissions; various authorities, including the Commissioner for Future Generations of Wales; Members of Parliament; and members of the private sector. The Special Rapporteur also held consultations with civil society organizations and businesses, as well as communities affected by pollution from industrial activities and those concerned about the toxic threats of fracking and nuclear waste.

II. Governance

A. Overview

3. Governance of hazardous substances and wastes throughout their lifecycle is a complex but necessary duty of States. To be effective, such governance should be addressed through a multisectoral approach.

4. The governance structure of the United Kingdom comprises 24 ministerial departments, 22 non-ministerial departments and more than 300 agencies and other public bodies, and some statutory powers devolved to the governments of Northern Ireland, Scotland and Wales. At present, the country's governance system is linked to the European Union institutions, as well as to a myriad of central or regional agencies, devolved governments and local authorities. As the issue of toxic chemicals touches on numerous policy areas, effective coordination and cooperation between agencies is necessary to respect, protect and fulfil the implicated human rights.

5. This complexity is well illustrated by the example of natural gas extraction via hydraulic fracturing (fracking). Considered primarily an energy issue — a reserved matter falling under national jurisdiction (except in Northern Ireland) — the Department for Business, Energy and Industrial Strategy takes the overall policy lead. Meanwhile, environmental matters are devolved, with the Department for Environment, Food and Rural Affairs responsible for environmental protection in England and collaborating closely with the devolved administrations.[1] The relevant environmental regulator therefore provides the necessary environmental permit, while the local planning authority grants planning permission. The 2015 Infrastructure Act, which regulates fracking, allows the Secretary of State for Communities and Local Government to call in planning applications and overrule a local authority's decision. Furthermore, the government of Wales has specific notification

[1] The primary environmental regulators in the United Kingdom are the Environment Agency for England, Natural Resources Wales, the Scottish Environment Protection Agency and the Northern Ireland Environment Agency.

directions relating to fracking applications which require local planning authorities to refer to Welsh ministers concerning applications.

6. Devolution has, on the one hand, allowed for more democratic decision-making about public health and environmental threats. A good example is the moratorium in force in Scotland on onshore unconventional oil and gas extraction (including fracking), which is allowing for informed decision-making and meaningful public participation. On the other hand, the increased responsibility accorded to local authorities, who often have insufficient resources, as well as the lack of structured cooperation between relevant authorities and limited channels of accountability and oversight, can be problematic.

7. During his visit, the Special Rapporteur observed that this highly complex and dispersed governance structure often causes confusion among the public.

8. For example, the Special Rapporteur met with representatives of a community in Merthyr Tydfil, in Wales, who explained that they continued to object to the ongoing operation of the Fos y Fran opencast coal mine, which began in 2007. The granting of planning permission was conditional on effective dust suppression measures being undertaken. While policy mechanisms for new opencast mines suggest a 500-metre buffer protection zone, unless there are exceptional circumstances, the closest houses to this mine are less than 40 metres away, apparently resulting from a legislative loophole allowing large expansions of old mines under "reclamation schemes". Winds are alleged to blow very frequently from the mines towards the community, bringing large amounts of dust and giving rise to serious health concerns. Residents claimed that there were cancer clusters and a high prevalence of childhood asthma in the area.

9. The Special Rapporteur was told that local authorities have been unreceptive to the concerns, instead directing residents to the mining company, Miller Argent (South Wales) Ltd., which has denied the dust problem. It was suggested, in discussions with the government, that most health problems were attributed to unhealthy lifestyles, not the mine. Despite repeated requests, authorities have not conducted independent health assessments since 2007, when the mining activities commenced. The Welsh authorities explained why a health study for such a small area and population near a source of pollution would not be dispositive. Rudimentary dust studies are undertaken by local residents themselves to provide evidence of their concerns.

10. In another example, inhabitants of South Falkirk in Scotland recounted to the Special Rapporteur that for the last seven years they had requested authorities to address concerns regarding the spreading of sewage sludge onto agricultural land. The sludge is thought to contain heavy metals and toxic substances, including proteinaceous infectious particles. Scientific evidence increasingly links these particles to Creutzfeldt-Jacob, Alzheimer's and Parkinson's diseases.[1] Residents, in particular those with existing respiratory health conditions, complain of adverse health effects allegedly caused by the sewage. Unsuitable transportation allows large sludge deposits to be spilled, leaching into land and watercourses, while stockpiles appear to be inappropriately stored. Residents allege that public authorities are failing to effectively regulate them or record application and saturation levels. Despite repeated requests, information on sludge treatment has not been disclosed. The government of Scotland explained a public consultation on proposed legislative changes had just been completed and a research project commissioned on the health impacts of spreading sludge, for publication in early 2018.

[1] See www.scientificamerican.com/article/are-prions-behind-all-neurodegenerative-diseases1/

B. Consequences of austerity

11. The impact of austerity measures initiated in 2010 has meant a radical lack of resources and reduction in public grants for the main environmental regulators across the United Kingdom. Between May 2015 and May 2016, the Department for Environment, Food and Rural Affairs and its agencies agreed to 500 voluntary exit packages, while the environment department, which is operating with a third of its core staff compared with just 10 years ago, must further trim its budget by 15 per cent by 2019 or 2020. Coupled with increased responsibilities for environmental matters given to the devolved authorities, the decreasing financial, technical and human resources due to austerity have created serious governance gaps.

12. A pertinent example is the Department's decision to withdraw capital grants to local councils to clean up contaminated land sites beginning in 2017. Considering that the polluter pays principle is in practice applied in only 9 per cent of cases, as the original polluter can often no longer be found, costs are usually borne by local authorities. According to the House of Commons Environmental Audit Committee, without the capital grants, local authorities with strained resources are unlikely to proactively investigate land contamination cases despite potentially serious health risks.[7]

III. Potential implications of withdrawal by the United Kingdom from the European Union (Brexit)

13. European Union regulations have undoubtedly strengthened human rights protections from various sources of pollution and contamination in the United Kingdom, holding the country to legally binding targets and reporting requirements. With some of the highest environmental standards in the world, the European Union has played a major role in shaping the United Kingdom environmental policy and improving its approach towards the management of hazardous substances and wastes. For example, as a member of the European Union, the United Kingdom has succeeded in significantly lowering sulphur dioxide emissions, previously the highest in the European Union, and improving waste disposal and sewage treatment practices.

A. Transposition of European Union legislation

14. On 29 March 2017, the Prime Minister triggered the formal two-year process that will lead to the departure of the United Kingdom from the European Union, also referred to as Brexit. Through the Great Repeal Bill, the European Communities Act will be repealed and the full body of existing European Union law transferred into United Kingdom law, with decisions about which legislation to repeal or amend to be addressed at a future stage. The United Kingdom Government states that the Great Repeal Bill will ensure that the whole body of existing European Union environmental law continues to have effect in the country. However, many interlocutors admitted uncertainties about how a transposition of European Union law could be achieved. The Secretary of State for Environment, Food and Rural

[7] House of Commons Environmental Audit Committee, *Soil Health*, First Report of Session 2016-7, 2 June 2016.

Affairs has advised that approximately one third of European Union environmental legislation will be difficult to transpose into United Kingdom law.[4]

15. Although the Environmental Audit Committee requested the Government, prior to triggering article 50 of the Treaty of Lisbon, to legislate a new Environmental Protections Act to ensure equal or higher standards than afforded by European law, the request was not heeded. The Government's decision to trigger article 50 without clarifying the technical details of the transposition of European Union law may pose a real danger that the country will be left without a clear framework to ensure levels of protection similar to those currently provided by the European Union. The United Kingdom Government is confident that it will be able to address these issues.

16. There were concerns, however, that the Government has not adequately assessed the burden of additional responsibilities to be shouldered by environmental regulators to replace the role of various European Union bodies. For example, the critical functions carried out by the European Chemicals Agency cannot simply be transferred into United Kingdom law, and should the United Kingdom leave the Agency, it will have to develop its own systems, at considerable cost, in order to maintain standards of protection.

B. Potential regression from human rights standards

17. Under the principle of non-regression, protections of human rights may not be lowered unless there is a strong justification for a retrogressive measure.[5] Furthermore, States are required to make progress in improving protections of life and health from toxic substances and wastes.[6] The fact that progressive realization is foreseen for the implicated economic, social and cultural rights is not an excuse for delay and should not be misinterpreted as depriving the obligation of all meaningful content.[7] States must move as expeditiously and effectively as possible to protect the right to health,[8] and take all possible measures to reduce infant mortality and increase life expectancy, especially by adopting measures to eliminate malnutrition and epidemics.[9]

18. The obligation to avoid retrogression applies to Brexit. The Special Rapporteur heard assurances from the Government that it intends to maintain current European Union standards on human rights and environmental protections. Yet, lack of clear guarantees, in particular to keep up with (presumably strengthening) European Union standards of human health and environmental protection over the coming years, and statements such as those made by the Parliamentary Under-Secretary of State for Environment, Food and Rural Affairs that existing laws would be maintained "wherever practical and desirable", are worrying.[10]

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[4] House of Commons Environmental Audit Committee, *The Future of the Natural Environment after the European Union Referendum*, Sixth Report of Session 2016-17, 4 January 2017.

[5] Universal Declaration of Human Rights; International Covenant on Civil and Political Rights, art. 30; International Covenant on Civil and Political Rights and International Covenant on Economic, Social and Cultural Rights, common art. 5; European Convention on Human Rights, arts. 17 and 53.

[6] See, e.g., International Covenant on Economic, Social and Cultural Rights, art. 12 (emphasizing the State's duty to improve all aspects of environmental hygiene).

[7] See Committee on Economic, Social and Cultural Rights, general comment No. 3 (1990) on the nature of States parties' obligations.

[8] Ibid.

[9] See Human Rights Committee, general comment No. 6 (1982) on the right to life.

[10] Department for Environment, Food and Rural Affairs, written questions about environmental protection received by the Government on 13 October 2016.

19. Should the Government fail to equal the European Union on air quality controls, chemical restrictions or product manufacturing standards, the United Kingdom market could risk becoming a haven for "dirty" industries and a dumping ground for products failing to meet European Union regulations.

20. Considering that the chemical and pharmaceutical industries are the country's leading manufacturing export earners and that 60 per cent of chemical exports are destined for the European Union, it appears that many United Kingdom companies support remaining within European Union regulatory frameworks.[11] In an inquiry published by the Environmental Audit Committee in April 2017, for example, most respondents expressed the wish to stay closely aligned to the REACH (registration, evaluation and authorization of chemicals) regulation.[12] However, the United Kingdom Government informed the Committee that it might not remain fully involved, considering that REACH is a single-market mechanism. Recognizing that relinquishing REACH membership while maintaining access to the single market implies establishing a costly stand-alone system, the Committee has urged the Government, at a minimum, to negotiate remaining within the data-sharing and registration process system of REACH.

21. Further compounding the potential for a weakening of human rights protections are the efforts by the United Kingdom to develop new trading opportunities. Certain prospects, such as the United States of America, take a regulatory approach to health, environmental and other human rights protections that are in many aspects at odds with those of the European Union today, such as the precautionary principle embedded in the Treaty of Lisbon. The Parliamentary Joint Committee on Human Rights has warned that human rights protections must not be lost in the rush to develop new trading opportunities.[13] The Special Rapporteur welcomed assurances made by the Government that it does not intend to align the country's future chemicals regulation system with certain weaker systems.[14]

IV. Specific issues raised with the Special Rapporteur

22. Air pollution, fracking, the long-term disposal of high-level radioactive waste, legacy landfills and other issues were brought to the attention of the Special Rapporteur during his mission. These issues implicate individuals' right to life, the right to the enjoyment of the highest attainable standard of physical and mental health, equal participation in political and public affairs, the right to access information and the right to an effective remedy, as well as the special protections provided to children under the Convention on the Rights of the Child.

A. Air pollution

23. Air pollution continues to plague the United Kingdom. Over 40,000 premature deaths per year are estimated to occur in the country, with over 9,000 in London alone.[15] According to the National Institute for Health Care and Excellence, the impact of poor air

[11] Chemical Industries Association, *BREXIT: The UK Chemical Industry Response: Results of the CIA Member Survey on Brexit* (2016).

[12] House of Commons Environmental Audit Committee, *The Future of Chemicals Regulation after the EU Referendum*, Eleventh Report of Session 2016-17, 29 April 2017.

[13] *Human Rights and Business 2017: Promoting Responsibility and Ensuring Accountability*, Sixth Report of Session 2016-17, 5 April 2017.

[14] Ibid., p. 9.

[15] See Environmental Audit Committee, *Air Quality*, Fifth Report of Session 2009-10, 22 March 2010.

quality on health across the United Kingdom has been estimated to cost about £18.6 billion per year.

24. Children, older persons and people with pre-existing health conditions are at grave risk of mortality, morbidity and disability, with magnified risks among the poor and minorities. In the view of the Special Rapporteur, by neither taking action as expeditiously and effectively as possible, nor taking all possible measures to reduce infant mortality and to increase life expectancy, the United Kingdom Government has violated its obligations to protect life, health and the development of children in its jurisdiction.

25. Paediatricians generally refer to the impacts of pollution and contamination on children's health as a silent pandemic (see A/HRC/33/41, para. 4), with research on air pollution illustrating respiratory failure-induced death, birth defects, adverse pregnancy outcomes (including premature birth), asthma and immune deficiency.[16] A study commissioned by the mayor of London in February 2017 identified 802 educational institutions, including nurseries and schools, as being exposed to levels of nitrogen dioxide that breach European Union legal limits. As highlighted by the mayor, this is not only an environmental and public health challenge, but also an issue of injustice and discrimination, as victims of the worst pollution often belonging to lower-income groups.

26. Air quality regulation in the United Kingdom is driven by European Union legislation. All major European Union directives have been transposed into domestic legislation, including the European Union National Emissions Ceilings Directive (2001/81/EC) (the Government plans to transpose the revised Directive, 2016/2284/EU, into United Kingdom legislation by the 1 July 2018 deadline), the Ambient Air Quality Directive (2008/50/EC) and the Industrial Emissions Directive (2010/75/EC). Devolved administrations in the United Kingdom are responsible for their own air quality policy and legislation. While the Environment Act 1995 requires the United Kingdom Government, Scotland and Wales (with equivalent legislation in Northern Ireland) to produce a national air quality strategy, it also sets provisions for local air quality management, obliging local authorities to prepare plans but not to carry out the measures described in those plans.

27. Some cities across the United Kingdom have been in breach of European Union standards on nitrogen dioxide since 2010, when they failed to comply with agreed threshold levels set in the European Union Ambient Air Quality Directive. According to a December 2015 report by the Department for Environment, Food and Rural Affairs, 38 out of 43 United Kingdom air quality zones exceeded maximum annual mean limits of nitrogen dioxide.[17] Across the United Kingdom, 631 new Air Quality Management Areas had been declared as of 3 July 2017.

28. On two occasions, United Kingdom courts have found the Government to be in breach of European Union air quality regulations. In July 2011, the non-governmental organization ClientEarth challenged the Department in the High Court for failing to protect citizens' health from the harmful impacts of air pollution. It took its case to the Supreme Court, where the Secretary of State agreed that the United Kingdom was in non-compliance with the European Union Ambient Air Quality Directive and ordering it to submit new plans to the European Commission no later than 31 December 2015.[18] In response to the ruling, the Government announced its new 2015 Air Quality Plan, introducing local measures to tackle the most polluting vehicles in a small number of "air quality hotspots", although

[16] See www.ncbi.nlm.nih.gov/pmc/articles/PMC2528642/.

[17] "Improving air quality in the UK: Tackling nitrogen dioxide in our towns and cities", overview document, December 2015.

[18] *R (on the application of ClientEarth) v. Secretary of State for the Environment, Food and Rural Affairs*, judgment of 29 April 2015.

exempting privately owned cars from paying charges. It also announced the introduction of Clean Air Zones to address air quality hotspots in Birmingham, Leeds, Nottingham, Derby and Southampton by 2020.

29. Accusing the Government of limiting itself to five Clean Air Zones because of cost implications and using inaccurate air pollution modelling forecasts, ClientEarth took the Government back to the High Court in a judicial review, and in November 2016 the Court found the Government's plan to be insufficient to comply with the European Union Directive. The Court ordered the Government to take measures to improve air pollution as soon as possible, and to develop a new plan by 31 July 2017.[19]

30. A new plan to mitigate air pollution was published in July 2017. The 2017 plan is presented as "delivering cleaner air in the shortest time possible." While many considerations must be taken into account, the latest plan does not convey the necessary urgency to protect the rights of children, older persons and other sensitive groups. For example, key details of the plan will not be finalized until December 2018 by local authorities. In doing so, local authorities are discouraged from using "charging zones," which the Government itself determined is the fastest, most effective way to reduce air pollution levels. Leaders of at least six city councils claim measures will not enable their cities to stay within legal limits on air pollution.

31. The Special Rapporteur is alarmed that despite repeated judicial instruction, as well as recommendations by the Committee on the Rights of the Child (see CRC/C/GBR/CO/5, paras. 68-69) the United Kingdom Government continues to flout its duty to ensure adequate air quality and protect the rights to life and health of its citizens.

B. Fracking

32. While shale gas development is at an early stage in the United Kingdom, the Government is encouraging its exploration to determine its potential to provide greater energy security and growth. More than 200 areas in the United Kingdom have been earmarked for possible fracking.[20]

33. Fracking has drawn strong community opposition wherever applications have been proposed. In January 2015, the government of Scotland imposed a moratorium on all planning and relevant environmental consents for unconventional oil and gas extraction in Scotland pending further assessments of the potential impacts. In January 2017, it launched a public consultation on whether to allow such extraction and, based on its outcome, intends to make a recommendation that will go before the Scottish Parliament for a vote towards the end of the year.

34. In Wales, the National Assembly adopted a motion against fracking on 5 February 2015. Until the passage of the draft Wales Act, granting further devolved powers to the National Assembly and the government, the United Kingdom Government pledged not to grant any fracking licences. The Act came into force on 31 January 2017, giving the Welsh government, which has historically opposed fracking, the authority over licensing for oil and gas extraction in Wales from 2018.

35. Currently, all planned shale gas developments are located in England. One exploratory well was operated in Preese Hall, in Lancashire. Operations ceased there in 2011, following seismic events, and have not resumed. In October 2016, the Government

[19] Case No. CO/1508/2016, *ClientEarth (No. 2) v. Secretary of State for the Environment, Food and Rural Affairs*, judgment of 2 November 2016.

[20] See https://act.foe.co.uk/act/ban-fracking-now.

approved plans by the company Cuadrilla to conduct exploratory fracking at Preston New Road in Lancashire, and planning permission has also been obtained by Third Energy to carry out exploratory fracking at a site in Kirby Misperton, Yorkshire. In May 2017, the Government also granted planning permission to the company IGas for two shale exploration proposals (drilling, not fracking) at Misson and Tinker Lane, Bassetlaw, Nottinghamshire.

36. Fracking poses several human rights concerns. A number of chemicals used in fracking are known or suspected to be harmful to human health. The fracking process also mobilizes toxic and radioactive substances. Both these chemicals and toxins, whether occurring naturally or introduced, remain in the resulting wastewater, each well producing millions of litres of "flowback fluid" which must be treated and disposed of extremely carefully to avoid environmental pollution and human exposure.

37. One of the most detailed public health studies on fracking, conducted by the Department of Health of New York State, found increased symptoms reported by residents living near gas drilling sites of skin rashes, nausea and vomiting, abdominal pain and breathing difficulties, which were found to be consistent with exposure to the chemicals used in fracking. Health studies have also established links between unconventional oil and gas extraction and adverse health outcomes in babies born to mothers living in the vicinity of well pads.[21] Workers risk exposure to respirable crystalline silica, which may cause silicosis and lung cancer. According to a health impact assessment carried out by the government of Scotland in 2016, there is evidence that air and waterborne hazards would be likely to occur as a result of fracking and that waterborne hazards are likely to have a negative impact on the quality of groundwater drinking sources.[22] While Health Protection Scotland and Public Health England claim that potential hazards and risks could be mitigated through proper operation and regulation, such assertions need greater substantiation to hold weight. The Special Rapporteur recalls that the United Kingdom has an obligation to protect the right of children to the highest attainable standard of health from contaminated water.[23]

38. The United Nations Environment Programme has concluded that hydraulic fracking may result in unavoidable environmental impacts, even if unconventional gas is extracted properly.[24] The large volumes of water used, the risks of accidental spills and leaks from wells and storage containers contaminating nearby soil and groundwater and the pollution caused by machinery and transport movements all pose serious concerns. A study conducted by the Royal Society for the Protection of Birds and a number of other wildlife charities in the United Kingdom concluded that many different aspects of fracking would negatively affect wildlife and reduce available water resources.[25]

39. To protect the right to safe water, strong and fully enforced regulations on chemicals used and waste generated and continuous monitoring, including after closure, are needed. According to the Government, environmental and health risks associated with fracking can be managed effectively, provided operational best practices are implemented and enforced. However, United Kingdom regulations on fracking are complex and split between several regulators, and do not appear to be sufficiently stringent. Meanwhile, European Union

[21] New York State Department of Health, *A Public Health Review of High Volume Hydraulic Fracturing for Shale Gas Development* (2014).

[22] Health Protection Scotland and National Services Scotland, *A Health Impact Assessment of Unconventional Oil and Gas in Scotland*, Volume 1, *Report* (2016).

[23] Convention on the Rights of the Child, art. 24.

[24] United Nations Environment Programme, Global Environment Alert Service, "Gas fracking: can we safely squeeze the rocks?", November 2012.

[25] *Hydraulic Fracturing for Shale Gas in the UK: Examining the Evidence for Potential Environmental Impacts* (2014).

regulations do not provide sufficiently robust guidelines, instead relying heavily on self-monitoring by the oil and gas industry.

40. The 2015 Infrastructure Act initially included a "necessary conditions" clause, for example prohibiting fracking under protected areas or within the boundaries of water protection zones; however, the House of Lords threw out this clause. The protected areas where hydraulic fracturing will be prohibited have since been set out in the Onshore Hydraulic Fracturing (Protected Areas) Regulations 2016. While environmental impact assessments have been produced for the two sites with planning permission to date, the Town and Country Planning (Environmental Impact Assessment) Regulations of 2017 only require such assessments for installations over a certain volume of production or greater than an undefined "area of the development". And while the Health and Safety Executive must conduct visits to fracking wells, they need not be unannounced, nor are there requirements to conduct independent inspections of well integrity. Finally, there are no requirements to continue monitoring methane emissions after a site is decommissioned, or to conduct long-term monitoring of other gases.[26]

41. Fracking clearly implicates individuals' right to information. Information about hazardous substances in fracking operations must be available and accessible to everyone, with special attention to those at greatest risk of harm. Health and safety information about toxic chemicals and wastes must never be confidential. The Special Rapporteur was encouraged to learn that the Environment Agency requires full disclosure of the chemicals used in fracking, and may prohibit the use of substances that pose an environmental risk. However, it may not have the capacity to continually apply such checks, and it remains a concern that such information does not need to be disclosed when applying for planning permission.

42. Recent decisions on fracking in England have been met with much controversy. In the case of the Preston New Road site, the Secretary of State for Communities and Local Government overturned the Lancashire County Council's decision to refuse planning permission. The affected community claims this to be a denial of local democracy, given that the local authority had originally refused permission, and the Council has called on the Government to address the community's concerns and ensure adequate environmental controls. A new appeal has been launched against the decision by the Secretary of State to grant planning permission at Preston New Road, and a hearing is expected to be held in August 2017.

43. In the case of the Kirby Misperton site, Friends of the Earth and Frack Free Ryedale legally challenged the granting of planning permission, arguing that the North Yorkshire County Council failed to properly assess the environmental impacts and lacked information about the total carbon emissions that would result from the project. In December 2015, the High Court dismissed the challenge, ruling that the Council's environmental assessments were sufficient.[27]

44. In principle, the Government recognizes that the negative health and environmental impacts associated with fracking must be managed with strong and fully enforced regulations. In practice, however, fragmented policymaking allows for loopholes, and the full extent of the impact on affected communities may not be adequately weighed in decision-making.

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[26] See www.talkfracking.org/news-archive/whats-in-the-infrastructure-act-2015/.

[27] Case No. CO/3470/2016, *Friends of the Earth Ltd. and Frack Free Ryedale v. North Yorkshire County Council*, judgment of 20 December 2016.

C. Toxic landfill sites

45. Waste disposal in the United Kingdom was historically managed through landfills, using a "dilute and disperse" approach. With the adoption of European Union legislation and evolving technology, waste management has become more sustainable and hundreds of landfills have closed across the country. The European Union Waste Framework Directive (2008/98/EC) provides the legislative framework for waste management, and requires States to ensure that human health or the environment is not endangered. The 1990 United Kingdom Environmental Protection Act implements the Directive. Where waste needs to be landfilled, it must comply with the requirements of the European Union Landfill Directive (1999/31/EC).

46. Due to its industrial history, the United Kingdom must also contend with a historic legacy of contamination. Some 300,000 hectares of soil are to some degree contaminated, some with toxic elements.[28] In England alone, almost 20,000 historic landfills dating back to the 1800s predate current domestic and European Union legislation, and tend to be unlined and lacking in leachate or gas management. Considering that over a thousand sites are located on the coast, there is a real risk of releasing waste due to flooding or erosion.

47. There are often no records on historic sites and their contents and a comprehensive response strategy for eroding locations, with specific guidelines to assess and manage their pollution risk, is lacking. Authorities tend to be too severely underresourced to carry out precautionary investigations or systematic land checks, with the costs of sampling analyses, remediation and waste relocation being prohibitively expensive.[29] In cases where developers wish to build on a site, it is their responsibility to ensure that health and safety standards are met. However, considering that many landfill sites are situated in zones considered unsuitable for development, monitoring responsibility often falls on local authorities, who have been hard hit by austerity measures.

48. The Special Rapporteur also heard concerns with regard to inadequate disposal of remnants of former activities of the United Kingdom military. Highly radioactive elements were discovered in 2011 at Dalgety Bay, which served as a naval support station in the Second World War. While initially denying responsibility, the Ministry of Defence has meanwhile agreed to carry out remediation activities. The case provides an encouraging example of how the environmental regulator, the Scottish Environment Protection Agency, sought support to ensure the protection of the environment and human health.

49. The Special Rapporteur cautions that austerity measures and budget cuts must never endanger human rights protections. In the case of historic waste, it is imperative that the Government recognize threats to life, health, child development and other human rights, and respond immediately to the serious risks they pose.

D. High-grade nuclear waste

50. The United Kingdom has a substantial legacy of radioactive waste from civil and defence programmes. The nuclear power industry is the source of most radioactive waste in the United Kingdom. There are currently 8 operating nuclear power stations, while 11 are being dismantled. According to the Government, the total amount of radioactive waste currently held in stores at 1 April 2016 and forecast up to 2125 would occupy a volume of

[28] House of Commons Environmental Audit Committee, *Soil Health*, p. 6.

[29] James Brand and Kate Spencer, *Assessing the Risk of Pollution from Historic Coastal Landfills: Executive Summary for the Environment Agency* (Queen Mary University of London, 2017).

about 4,770,000 cubic metres, similar to the volume of Wembley stadium.[30] The majority of reprocessing takes place at Sellafield, in Cumbria.

51. Currently, most of the radioactive waste in the United Kingdom, which must be managed for tens of thousands of years, is stored at ground level in vaults and buildings. Recognizing the potentially catastrophic impacts in case of an accident, and set to expand nuclear energy as a "cleaner" alternative to fossil fuels, the Government has committed to establishing a long-term geological disposal facility for higher-activity radioactive waste. So far, a suitable site has not been found.[31]

52. The Department of Energy and Climate Change issued a White Paper in July 2014 in which it detailed a renewed approach to implementing a geological disposal facility in England and Northern Ireland.[32] Its key principles include undertaking a national geological screening exercise; developing a non-site-specific National Planning Statement to support the planning process; and developing a process for working with communities, including community representation and details of community investment. The paper suggests that the Department favours a voluntarist approach based on working with communities that are willing to participate in the siting process. Significant economic benefits and additional community investment are promised to host communities.

53. Concern was raised by anti-nuclear campaigners when legislation was passed in April 2015 under which radioactive waste sites would be considered "nationally significant infrastructure projects". The law, allegedly rushed through the day before Parliament was prorogued, without public debate, raises fears that the Secretary of State for Energy may be able to bypass or override local planning authorities on the location for the development of such a site.

54. There are also concerns with regard to the transport of nuclear waste across the United Kingdom. For example, waste is transported weekly over 400 miles from the decommissioned Dounreay civil nuclear reactor site in Scotland for treatment and storage in Sellafield. The road and rail journey passes through remote rural areas where it would be difficult to ensure a timely emergency response, as well as heavily populated regions, sometimes in close proximity to schools and residential areas. Some transports also take place by sea, apparently without being accompanied by an emergency vessel. Highlands Against Nuclear Transport, a citizen's movement challenging the lack of transparency or meaningful public consultation prior to the commencement of the transports in 2013, are demanding that nuclear wastes be stored at their site of production under constant monitoring and adequate security. They cite insufficient knowledge regarding the dangers of spent nuclear material and the potential catastrophe for human health and the environment in the event of an accident or terrorist attack.

55. In the meantime, the United Kingdom is planning to create more nuclear waste. As part of its climate change commitments, the Government announced plans in October 2010 to build eight new nuclear power plants over the following decade to provide power previously generated by coal, oil and gas stations (the policy does not apply to Scotland). Construction at a first site, Hinkley Point, has begun.

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[30] Department for Business, Energy and Industrial Strategy and Nuclear Decommissioning Authority, *Radioactive Wastes in the UK: A Summary of the 2016 Inventory* (2017).

[31] In January 2013, following a four-year process, the Cumbria County Council voted against an advanced "stage four" search for a site for such a facility.

[32] *Implementing Geological Disposal: A Framework for the Long-Term Management of Higher Activity Radioactive Waste* (2014).

56. The very grave risks posed to the rights to life and health strictly necessitate that all nuclear waste-related policymaking require meaningful participation and provide safeguards to protect the rights of present and future generations.

V. United Kingdom businesses and human rights, at home and abroad

57. The Guiding Principles on Business and Human Rights affirm that under existing international human rights law, States have the duty to protect against human rights abuses by all actors in society, including businesses domiciled in their territory or within their jurisdiction.

A. Criminal and other liabilities of business enterprises

58. While the United Kingdom has certain specific laws and common law rules to protect human rights in the context of business activities, for example the Health and Safety at Work Act 1974 and the Gangmasters (Licensing) Act 2004, comprehensive legislation to hold businesses to account for human rights abuses is lacking. While legislation provides for the criminal prosecution of a business enterprise, it is very difficult to prove the intent of a business, and the criminal justice system tends to focus on individual criminal liability, which can be difficult to attribute to a company. The Parliamentary Joint Committee on Human Rights, mandated to examine human rights matters within the United Kingdom, has recommended that the Government bring forward legislation to impose a duty on all companies, including parent companies, to prevent human rights abuses, with failure to do so becoming an offence, as under the Bribery Act 2010.[33] The United Kingdom also appears to suffer from insufficient expertise and resources to efficiently combat corporate crime.

59. With regard to United Kingdom businesses abroad, victims seeking accountability under United Kingdom law encounter even larger obstacles. Prosecutions are rare as parent and subsidiary companies are considered separate legal entities and courts appear reluctant to "lift the corporate veil". Furthermore, enforcement agencies admittedly tend to lack specialist knowledge or the resources to investigate toxic chemical and waste crimes committed abroad. The Government is also not proactive in ensuring that companies operate to the same standards outside the United Kingdom, stating in its National Action Plan on Business and Human Rights that "human rights obligations generally apply only within a State's territory or jurisdiction ... there is no general requirement for States to regulate the extraterritorial activities of business enterprises domiciled in their jurisdiction."[34] This view likely contributes to the human rights impacts of United Kingdom business abroad, some of which are discussed below.

60. With regard to international waste crimes, however, the Special Rapporteur was encouraged to learn that both the United Kingdom Environment Agency and Scottish public prosecutors have conducted investigations that have led to the successful conviction of United Kingdom businesses. In Scotland, for example, a waste operator was prosecuted and fined on 5 January 2017 for the illegal shipment of electrical waste to Nigeria in 2014 in contravention of the Transfrontier Shipment of Waste Regulations 2007. The Agency has also successfully prosecuted those responsible for several shipments of illegal waste to

[33] See *Human Rights and Business 2017: Promoting Responsibility and Ensuring Accountability* (2017).

[34] See *Good Business: Implementing the UN Guiding Principles on Business and Human Rights: Updated May 2016*, para. 11.

Africa, and has secured prison sentences. However, authorities have declined to pursue charges in certain cases, as discussed below.

B. National action plans and toxics

61. The United Kingdom has shown strong support for the Guiding Principles and was the first Member State to launch its National Action Plan on Business and Human Rights, in September 2013. This plan, which sets out guidance to companies on integrating human rights into their operations, was updated in May 2016.

62. Devolved administrations may also develop their own strategies to support the National Action Plan. In Scotland, a national baseline assessment on business and human rights was conducted to inform the creation of a Scottish National Action Plan, which is expected to be completed in 2018. There is, however, concern that political will and resources to see the plan through may be wavering, and that the environmental aspects of business activity may not be sufficiently taken into account. In Northern Ireland, the Business and Human Rights Forum has been established, with cross-departmental support, to share good practice and as a means of engaging with the United Kingdom National Action Plan.

63. In April 2017, the Parliamentary Joint Committee on Human Rights published its inquiry into the progress achieved by the United Kingdom towards implementing the Guiding Principles. Criticisms of the updated United Kingdom National Action Plan include that it is lacking in new commitments, lacks a timetable for meeting objectives and does not provide clarity on which government departments have responsibility for various components of the business and human rights agenda.[35] In the view of the Special Rapporteur, the National Action Plan is also exceedingly vague, referring very generally to business enterprises without setting out expectations or recommendations for specific sectors, such as chemical manufacturing groups, waste disposal companies and other enterprises dealing with hazardous substances.

64. In general, the United Kingdom approach to business responsibility is to provide support and guidance to industry-led initiatives that seek to avoid human rights risks, rather than rely on strong regulatory oversight or punitive measures. This dependence on reputational risk is evident in the revised National Action Plan which, for example, emphasizes a company's brand value in ensuring due diligence and the recognition that adherence to human rights reduces risks of litigation.

65. The United Kingdom recently amended the European Union Directive on the disclosure of non-financial and diversity information by certain large undertakings and groups (2014/95/EU). The regulation requires large "public interest" companies to disclose a range of non-financial information, including respect for human rights and environmental matters. The Government considers itself to be a standard-setter in this regard, with the Directive complementing existing national reporting regulations requiring companies to disclose specific information, including on human rights issues, through annual strategic reports. Aimed at ensuring greater transparency for shareholders, the strategic reports have led to improved levels of disclosure. For example, in its 2015 strategic report, British Petroleum provided information on the oil spill in the Gulf of Mexico, including developments in the settlement of claims, ensuring environmental restoration and efforts to improve oil spill preparedness and response. In its 2015 strategic report, EDF Energy Holdings Limited mentions issues such as health and safety and

[35] Ibid., para. 25.

nuclear liabilities risks, while Rolls Royce Holdings plc refer to adherence to the Global Supplier Code of Conduct and efforts to reduce waste and greenhouse gas emissions.

66. Nevertheless, the Special Rapporteur regards reporting on human rights-related matters as superficial because, for example it fails to provide details on the types of toxic chemicals used in production or disaggregated data on pollution and waste generated by an enterprise or its suppliers. Furthermore, reporting does not enable any meaningful assessment of progress or comparison between companies. The financial sector and investors are also not encouraged to assess the connections between pollution risks and human rights. It is apparent that the strong reliance of the United Kingdom on voluntary self-regulation and expectations that investors will review a company's human rights record do not constitute adequate safeguards, including ensuring transparency and traceability in supply chains. This is particularly relevant with regard to companies using or manufacturing toxic chemicals, which are often large multinational companies with overseas subsidiary bodies. Human rights due diligence speaks directly to the responsibility of chemical manufacturers to prevent human exposure to hazardous substances and wastes throughout the supply chain by, for example, conducting risk assessments of products sourced from suppliers, verifying the application and end use of their products and alerting downstream businesses to possible health risks.

C. Supply chains and impacts of United Kingdom businesses abroad

67. There are several cases of United Kingdom businesses failing to conduct adequate due diligence on the impacts of their activities and business relationships abroad with respect to toxic chemicals, pollution and waste.

1. Export of hazardous substances and wastes

Illegal dumping of waste

68. In a high-profile case dating back to August 2006, implicating the London-based trading company Trafigura Ltd. in the coordination of operations that led to the dumping of toxic waste in Abidjan, the United Kingdom failed to launch a criminal investigation. The disaster had a devastating impact on the health of the local community, with over 100,000 people seeking medical assistance and resulting in approximately 15 deaths. Despite evidence of corporate conspiracy to dump waste abroad under section 1A of the United Kingdom Criminal Act 1977, relevant authorities have not examined the case, claiming the lack of resources and capacity.

Export of substandard gasoline

69. Another concern that raised with the Special Rapporteur is the export of substandard fuels to West Africa that are prohibited in the United Kingdom and Europe because of their public health impacts. Major oil and commodity trading companies are allegedly producing cheaper, more toxic blended petroleum products specifically for export to West African countries, taking advantage of their weaker regulatory standards. These "blendstocks" contain high levels of sulphur as well as other toxic substances such as benzene and aromatics that increase air pollution and that have proven to be damaging to human health. It is illegal to export these fuels to African States that are party to the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa.

70. Among several European companies implicated, British Petroleumor "BP" , which is headquartered in the United Kingdom, is alleged to be loading high-sulphur diesel from ports in Amsterdam for sale in Ghana, and it is also alleged that tankers are loading dirty

fuel in various locations in the United Kingdom, including Fawley, Immingham and Pembroke, for export to West Africa.

Export of banned pesticides

71. The United Kingdom hosts major production sites for global chemicals manufacturers, some of which produce toxic industrial chemicals and pesticides for export that are not allowed to be used in the United Kingdom and/or Europe. Often, these countries have far weaker governance structures for chemicals management relative to those in Europe. For example, Syngenta's plants in the United Kingdom produce the highly toxic pesticide paraquat, sold worldwide under the brand name Gramoxone. Paraquat was banned by the European Union in 2007. Syngenta disputes that the European Union "banned" paraquat and claims that it has sought to develop alternatives, but without success. Studies have linked chronic exposure to paraquat to grave impacts on human health, including lung damage and Parkinson's disease.[56]

2. Sale of dangerous consumer products

72. During the Special Rapporteur's visit to the Republic of Korea in 2015, he learned of the case of over 1,000 victims of an untested, underregulated consumer product. Unknowingly, consumers had added a toxic chemical disinfectant mixture to the water tanks of humidifiers, which led to over 90 deaths. Among the victims were numerous young babies and pregnant women, whose bodies were especially vulnerable to the disinfectant (see A/HRC/33/41/Add.1, paras. 30-45).

73. The vast majority of the product was sold by the subsidiary (Oxy) of a United Kingdom pharmaceutical company (Reckitt Benckiser), which certainly should have known the risks, regardless of the fact that it was in compliance with certain Korean laws at the time. The Special Rapporteur was pleased to hear from the Chief Executive Officer that he had offered a sincere apology to victims and made a commitment to stronger due diligence for toxic chemical-related risks. He also noted, with concern, Reckitt Benkiser's description of grave failures by the Korean chemicals manufacturer, SK Chemicals, which the Government of the Republic of Korea allegedly has inadequately prosecuted for wrongdoing.

3. Extractive industries

74. In 2015, the mining operation of the United Kingdom-based mining giant BHP Billiton in Minas Gerais resulted in what is described as the worst environmental disaster in Brazil's history. The collapse of the Samarco tailing dam belonging to a joint venture of BHP Billiton and Vale led to the release of 50 million tons of iron ore waste, containing high levels of toxic heavy metals and chemicals, contaminating soils and water systems over an 850-km area. That was not the first time the company had been implicated in human rights abuses related to its operations abroad: it was previously sued by a group of landowners in Papua New Guinea for dumping toxic mining waste in the Ok Tedi River, and has been accused of excessive water use at a copper mine in Chile.

75. The Special Rapporteur heard from BHP regarding its efforts to ensure access to justice and remedy to the communities affected by the Samarco dam disaster, including the rejection of an initial settlement due to a lack of consultation with affected communities.

[56] Public Eye, Pesticide Action Network UK and Pesticide Action Network Asia-Pacific, *Caused by Paraquat: A Bibliography of Documented Evidence* (2017).

VI. Access to justice and remedy

76. Seeking remedy in the United Kingdom can be extremely challenging for victims. The Special Rapporteur heard substantial evidence on the range of obstacles that obstruct access to remedies for victims of human rights abuses by companies related to exposures to toxic substances. These include changes to limit legal aid provision, limits on the recovery of legal costs, increases in fees and the otherwise high costs of civil action. In addition, court procedures have made it increasingly difficult to obtain access to corporate documents. In addition to severe difficulties in accessing information and the challenge of establishing legal causation, cuts in legal aid, limits on the recovery of legal costs and increases in court and tribunal fees in England and Wales have made it even more difficult for victims of pollution and contamination to seek remedy.[37] Furthermore, austerity measures have driven many local councils to withdraw funding from welfare rights services and law centres, often to be replaced by only a helpline or website. Victims abroad face even greater hurdles, confronted with the burden of proving that their claim falls within the jurisdiction of the United Kingdom.[38]

77. In 2009, England and Wales had the highest legal aid spent per capita in the world.[39] However, this changed in April 2013 when the Legal Aid, Sentencing and Punishment of Offenders Act came into force as part of a plan to cut £350 million a year in public spending. Under the Act, many categories of criminal and civil cases no longer qualify for legal aid funding. The year the Act came into force, there was a 46 per cent drop in the provision of legal aid.[40]

78. Low-income communities are among the most vulnerable to abuses. Despite assurances that vulnerable groups would not be affected by the cuts, many who previously could have claimed legal aid are now unable to afford lawyers or access legal advice. The Exceptional Case Funding Scheme, meant to ensure that legal aid remained available to the most vulnerable, has been criticized for failing to provide a safety net for those who were already experiencing the highest barriers in accessing justice.[41] Critics claim that this has led to a two-tier system in which justice is available only to those who can afford it.

79. With regard to Scotland, the Government's expenditure on legal assistance has diminished in the last 10 years and the system has been described as inaccessibly complex. With regard to legal assistance involving public interest cases, the Scottish Human Rights Commission has also highlighted that the threat of having to pay the opposing party's costs can present a significant barrier to bringing such cases.

A. Domestic examples

1. Health care and compensation for toxic exposures at the workplace

80. For workers who develop diseases from exposures to toxic chemicals at work, compensation, health care and other aspects of their right to an effective remedy can very often be unattainable. It is calculated that less than 1 per cent of sick workers receive compensation in the United Kingdom for non-asbestos-related occupational diseases.

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[37] *Ibid.*, p. 25.

[38] See Parliamentary Joint Committee on Human Rights, *Human Rights and Business 2017*.

[39] See www.newstatesman.com/politics/uk/2016/03/real-impact-legal-aid-cuts.

[40] Amnesty International, *Cuts that Hurt: The Impact of Legal Aid Cuts in England on Access to Justice* (2016).

[41] *Ibid.*, p. 32.

81. While the Health and Safety Executive has conservatively estimated that approximately 13,000 new cases of occupational disease arise each year, including cancers related to chemical exposure, alarming shortcomings in the United Kingdom compensatory system exclude many claimants due to disability thresholds, minimum exposure times and lack of recognition of elevated risks due to multiple exposures. The United Kingdom Industrial Injuries Advisory Council generally imposes a non-legal, non-scientific "relative risk" test, which requires that the condition be twice as common in the affected group as in the general population. Considering that this threshold is very difficult to meet, fewer occupational diseases are officially recognized in the United Kingdom compared with other countries that apply different criteria.[42]

82. In an example dating back to the 1980s, farmers and agricultural workers who believe they were affected by the use of organophosphate-based or "OP" pesticides in sheep dipping activities have faced severe difficulties in accessing an effective remedy. At the time, the United Kingdom Government ran a mandatory programme requiring farmers to chemically treat their sheep with pesticides to combat sheep scab. Most farmers used organophosphate-based dips to comply, as they were the only licensed products available initially. Organophosphate compounds were initially developed as neurotoxic chemical warfare agents due to their ability to inhibit blood cholinesterase activity.[43]

83. Over the next two decades, farmers reported a range of debilitating health problems which they believed to be the result of poisoning from the organophosphate-based products, with symptoms including nausea, anxiety, pulmonary oedema and long-term neurological damage. Victim support groups compiled a list of more than 500 farmers believed to have suffered from ill health as a result of their exposure, although campaigners claim the real number to run in the thousands. Victims struggled to access appropriate treatment under the public health regime, as organophosphate poisoning was not considered to be a medical condition. Some were allegedly wrongly diagnosed as suffering from psychological issues and given medications that exacerbated their suffering. A number of individuals who were medically tested by the Government claim they experienced serious difficulties in obtaining the release of their medical records.[44] The difficulty in establishing causation between chronic ill health and the use of organophosphate-based pesticides has seen many legal claims fail.

84. In 2015, an internal report of the Health and Safety Executive of May 1991 was released under a freedom of information request, which established that government officials had warned of the dangers of exposure to organophosphate-based pesticides. Yet in the same month, the Minister of Farming demanded that local authorities clamp down on farmers who refused to use the chemical. The release of the internal report triggered calls by more than a dozen Members of Parliament for an inquiry and public debate into whether farmers were misled over the use of organophosphate-based pesticides.

85. Officials of the Department for Environment, Food and Rural Affairs explained that no precaution could ever offer 100 per cent protection from any exposure to organophosphate-based pesticides, and explained the difficulty in predicting exposure levels. In the May 1991 report, manufacturers of the sheep-dipping chemicals were

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[42] For example, Canada, Australia and several European countries, in particular Denmark. Andrew Watterson, "Double trouble on relative risk for occupational diseases", *Hazards Magazine* (March 2015).

[43] The programme was halted in 1992.

[44] In the year and a half preceding the time of writing, 20 documents were released with the help of the Department for Environment, Food and Rural Affairs. They contain medical results, but not the names linked to them.

criticized for providing inadequate protective measures and instructions for the use of the product. At the time, legislation and guidance to ensure the protection of agricultural workers using the organophosphate-based pesticides placed the burden on farmers to protect themselves. Since 1995, the sale and supply of organophosphate-based pesticides have been restricted to appropriately trained and certified users. The Veterinary Medicines Regulations 2006 introduced a requirement for sheep dipping to be supervised by a holder of a certificate of competence.

86. The United Kingdom Government stated that it has invested a considerable amount of time and public money to understand all the risks relating to those compounds and determine how they could be minimized, and that it has been unable to identify any causal link between exposure to organophosphate-based pesticides and the symptoms reported. The Special Rapporteur was also referred to a statement on organophosphates issued by the Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment in 2014, which concluded that exposures to cholinesterase-inhibiting organophosphates that are insufficient to cause overt acute poisoning do not cause important long-term neurological toxicity in adults. However, a number of medical experts have spoken out about the use of organophosphate-based sheep dips and the high number of incidents of chronic ill health within the farming community. One independent study, which reviewed the available evidence concerning the neurotoxicity of low-level occupational exposure to organophosphate-based pesticides, found that 13 out of 16 studies showed evidence of neurological problems following long-term, low-level exposure.[45] The United Kingdom Government stated that the Committee had reviewed this study, reaching its conclusion in 2014.

2. Local communities

87. The unavailability of protective costs for many claimants is an insurmountable obstacle. In the case of the above-mentioned Fos y Fran opencast coal mine, an affected resident sent a communication to the Compliance Committee under the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), claiming a violation of the Convention by the United Kingdom for failing to ensure that members of the public are not excluded from court procedures by prohibitive expense. The Compliance Committee found the United Kingdom to be in breach of its obligation to ensure access to justice by, in essence, excluding the public from court procedures by prohibitively expensive cost requirements. However, the United Kingdom continues to fail to provide protective costs to allow individuals or community groups access to affordable legal procedures for pollution disputes, including private nuisance claims.

B. International examples

88. The above-mentioned Trafigura waste dumping case is an encouraging example of justice successfully accessed in the United Kingdom for crimes committed abroad. A group action by approximately 30,000 claimants from Cote d'Ivoire against Trafigura Ltd. was heard by the High Court of Justice in London in November 2006. In September 2009, the parties reached a settlement, with Trafigura agreeing to pay each of the 30,000 claimants approximately $1,500.

[45] Sarah Mackenzie Ross, "Neurobehavioral problems following low-level exposure to organophosphate pesticides: a systematic and meta-analytic review", *Critical Reviews in* Toxicology, vol. 43, No. 1 (2013).

89. In another example, in 2008 and 2009, two large oil spills caused by ruptures in pipelines owned by the Anglo-Dutch company Royal Dutch Shell devastated the environment in Ogoniland in the Niger Delta region of Nigeria. In March 2012, members of the affected Bodo community filed a lawsuit against Shell in the London High Court, seeking compensation for damages suffered to their health, livelihoods and land, and demanding clean-up. While Shell admitted that its Nigerian subsidiary, the Shell Petroleum Development Company, was liable for the spills, it argued they were caused by theft and sabotage. In a preliminary hearing, held in April 2014, the Court ruled that Shell could be held responsible if it failed to take reasonable measures to protect pipelines from malfunction or oil theft. While the case was expected to go to trial, Shell agreed to a £55 million out-of-court settlement in January 2015. Nevertheless, it is understood that clean-up operations by Shell and its subsidiary failed to meet minimum standards, with land remaining heavily contaminated and drinking water polluted.

90. In a worrying setback for victims of toxic pollution, the United Kingdom High Court ruled on 26 January 2017 that two separate legal actions brought by Nigerian communities against Shell and its subsidiary could not be heard in the United Kingdom. The claims asserted that Shell controls and directs its 100 per cent-owned Nigerian subsidiary and should therefore ensure that its operations do not systematically pollute the environment. However, the High Court ruled that the suit did not establish legal responsibility of the parent company for its subsidiary's actions and that the United Kingdom did not have jurisdiction over claims brought by Nigerian citizens for breaches of statutory duty in Nigeria by a local company. It is expected that the communities will appeal the ruling. If upheld, it will establish an extremely dangerous precedent that will give United Kingdom multinationals the green light to commit human rights abuses abroad with impunity, and deny communities affected by toxic pollution justice or remediation.

VI. Conclusions and recommendations

91. **The United Kingdom stands at a critical juncture as it prepares its exit from the European Union. As it stands, the country is already grappling with significant challenges relating to hazardous substances and wastes that have negative implications on human rights. Air pollution, toxic legacies, the transnational impacts of United Kingdom businesses abroad and decision-making, which impose very real risks on affected communities, for example in relation to fracking and storage of nuclear waste, all require more stringent regulations and enforcement mechanisms to prevent human rights abuse.**

92. **There is a very real risk that the additional demands placed by Brexit will compound these weaknesses and place further strains on the complex governance structure and stretched resources of relevant regulators. It is crucial that the citizens of the United Kingdom, who often already suffer from lack of information, participation and effective remedy when it comes to exposure to toxic substances, do not fall victim to lower protections and human rights standards as a result of Brexit.**

93. **The Special Rapporteur therefore recommends that the Government:**

(a) **Ensure the integration of human rights in decision-making and guarantee greater transparency and clarity as to which bodies are responsible for the management and regulation of hazardous substances and wastes, including effectively communicating to the public to whom they may address their concerns in relation to alleged human rights violations;**

(b) **Ensure that austerity measures do not hinder the functions of environmental regulators and other relevant authorities to protect the citizens of the United Kingdom from the harmful effects of toxic chemicals and wastes;**

(c) **Ensure that adequate safeguards are in place to prevent Brexit from initiating a regression on human rights and environmental standards. The Government is encouraged to negotiate that it remain within European Union systems such as REACH and to continue to abide by the evolving air quality standards of the European Union, including its Clean Air Policy Package;**

(d) **Reconsider the recommendation by the Environmental Audit Committee to legislate a new Environmental Protections Act for Brexit to ensure standards that are equal to or higher than those afforded by European law;**

(e) **With regard to new trading opportunities, continue to uphold human rights standards, where possible higher than those contained in European Union trading agreements;**

(f) **Implement a robust clear air plan without delay, heeding recommendations by specialists on the most effective methods to cut air pollution, for example by developing an extensive network of clean air zones across the country;**

(g) **Impose stronger and more coherent regulations on fracking to minimize its negative impacts and ensure that local decision-making on authorization and permitting is coupled with thorough, transparent assessments which fully consider the human health, environmental and human rights implications;**

(h) **Ensure adequate resources to adequately monitor eroding toxic landfill sites and implement an effective response strategy with specific standards to assess their pollution risks and remediation goals;**

(i) **Reconsider national plans to increase reliance on nuclear energy, considering that long-term storage of nuclear waste is uncertain and poses significant risks to the population;**

(j) **Supplement the National Action Plan on Business and Human Rights with specific recommendations to business sectors implicated by toxic chemicals, including chemical manufacturing groups and waste disposal companies, for due diligence, and impose in-depth reporting requirements on human rights and pollution risks at home and abroad;**

(k) **Draft legislation similar to the Bribery Act 2010, targeting companies that produce or use toxic chemicals and making the failure to prevent human rights abuses a criminal offence;**

(l) **Replicate the Modern Slavery Act to generally ensure due diligence by companies throughout their supply chains, in particular companies whose activities have toxic implications;**

(m) **Reinstate legal aid and ensure that protective costs are available for victims of toxic chemical pollution, and remove obstacles to accessing information relevant to their human rights;**

(n) **Examine the obstacles to the right to effective remedy by workers and other victims suffering from toxic exposure, including causation, and ensure that victims of United Kingdom companies operating abroad are able to access justice and remedy in the United Kingdom.**